

abnormal individuals whose peculiarities were similar. This is the difficulty in accepting the Mendelian hypothesis as an explanation of the origin of fixed varieties or species. It may be proved that certain peculiarities which arise as "sports" are represented by certain elements in the germ-cells that are not obliterated by interbreeding, although they may be concealed. A cross that results from the interbreeding of such a sport and a normal individual produces only a certain proportion of reproductive-cells that possess these new elements, so that if two such crosses come together it would be necessary that one of a particular number of sperm-cells from the male should unite with one of a particular number of germ-cells from the female, in order to produce an individual in which the new character would be fixed. This could only come about with the closest in-and-in breeding, and from a theoretical point of view the chances of the establishment of a new variety seem to be very remote. But the fact remains that varieties have been established : we owe to them the multiplicity of species in the animal and vegetable kingdoms. They have withstood the swamping effect of sexual interaction. But it is clear, nevertheless, that marriage has generally the effect of reducing eccentricity to normality : we observe that relationship is marked by resemblances of feature and character. We also find this resemblance, although

in a less  
degree. within the circle of a nation.  
for. unless  
interbreeding has been artificially  
checked. in the  
course of few centuries the greater  
number of its  
families have blood in common.

It is difficult to realize how extensive  
are the  
bonds of collateral relationship. Misled  
by genea-  
logical tables we picture the  
continuance of a race  
in the similitude of a tree. This serves  
its purpose